

Vehicle Drive Recorder

WINYCAM HD

V300 HD 2.0 mega pixel



WINY Technology Co., Ltd.

<http://winycam-eng.com>

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Precautions for safety when using the product

- Please do not operate the product during driving. It may cause accidents.
- Please install the product in a place not to interfere with a driver's view.
- Do not disassemble or convert the product intentionally. It may lead to product failure and the responsibility for the damage to the product resulting from this shall be borne by the user.
- When damage to the product itself occurs due to a major accident or the power is disconnected, images of the accident may not be recorded.
- Please keep the windshield clean at portion of recording before recording.
- Since this product is a device that records a driving video by using the camera, the image quality may drop when entering the tunnel, in shading contrast, backlight and photometric conditions, and the middle of the night.
- In case those foreign objects attach to camera lens, recorded video may not be in good condition. Please keep the lens clean.
- Do not leave a product in a place exposed to the direct sunlight in a car or in a confined car. It may cause a malfunction.
- Do not wipe the product using chemicals, detergents, etc., but wipe it lightly using a soft cloth.
- The thermal environment at below -5°C or over 55°C may cause a malfunction or failure of the product. (When not using the product, please be careful about storage temperature)
- Do not use the product in a place at high temperature or much moisture.
- Do not press excessive force to the products (especially buttons and bracket). It may cause a malfunction of the products.
- Before using the product, make sure to operate it for 3 to 5 minutes and verify that the image saved properly and then use it.
- If the product is in prolonged exposure to sunlight or high temperatures during the summer, normal operation can be difficult.
- When firmware upgrade is in progress, if SD card is removed or a power is disconnected, failure of the product may occur, so should be careful.
- When removing or disconnecting the cigarette lighter cable, it may result in electric shock, so do not touch it with wet hands.
- Do not use the damaged cigarette lighter cable. It may cause fire and electrical shock.
- Do not leave the cigarette lighter cable or the product near heating equipment.
- When not using the product for the long-term, please separate off the cigarette lighter cable from the product.
- Please plug the cigarette lighter cable correctly and should not be shaken.
- Do not bend or pull the cigarette lighter cable forcefully or avoid placing heavy objects on the cigarette lighter cable. (A damaged power cord may cause fire or electric shock)
- Even if overwrite function is in 'Off' condition, a part of recorded file may be deleted to create some recording space at booting.
- In the lower frame setup, the event may not be recorded. For the stable event recording, recording setup is greater than or equal to 15 frames is recommended.

Precautions when using a SD card

- In order to confirm normal operation of the product, please check the image of a SD card and format it on a regular basis. (PC format needed one to two times per month)
 - Because an SD card is consumables, if it is used for a long time, you may lose the data or may not record due to an error, so please check it periodically.
 - When the product is in recording or the power is on, do not eject the SD card forcibly. It may cause a failure of the SD card and data loss.
 - Due to excessive temperature rise inside the car, the data may not be saved or get damaged, so please park the car in a cool place in the summer.
 - When identify the car's accident or damage, please keep the SD card separately. Due to overwrite, important data may be deleted.
 - When turn off the power of the body and remove the SD card before LED is turned off, the last recording file may not be saved, so please be careful.
 - In general, the SD card is a consumable product in life, so if it is not used for a long time, you may not be able to save the data. In this case, buy a new SD card and use it, and please always check that the recorded images and a SD card have no problems with data storage.
 - When driving a car, do not remove the SD card. Make sure to remove it safely when a car is in parking or stop.
 - After turning on the power, make sure that it is in normal operation.
 - Please note that the warranty period of an SD card is six months, and replace it at the time of more than six months.
 - The SD card randomly purchased other than the one we provide, shall be excluded from the warranty, and we shall not take any responsibility for loss and damage of the data recorded in the SD card in any case.
-
- This product is assistant device for recoding driving video. Please use this product for your reference for checking driving video, not as special CCTV because the image might not be record depend on environment.
 - This product might change without any notice for performance improvement.
 - This user manual indicate only basic user manual, please check furthermore detail information from <http://winycam-eng.com>

Standard Package



Body & Bracket



Car Cigar jack



Micro SD card



Cable Clip



SD Card Adaptor



User Manual

Option Accessories



Video Cable
(Selling separately)



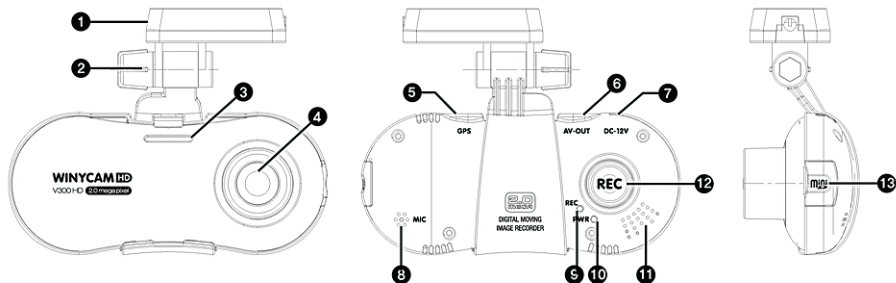
GPS Bracket
(Selling separately)

- The viewer program is stored in Micro SD card.
- Please use after saving the program in advance in the computer, etc. so that the program can't be deleted.
(If it is deleted, you can download it from our website.)
- The packaged product picture of the user manual may differ from the actual product.
- Video cable is used for connection to the TV / car navigation, and can monitor real-time. But please note that depend on monitors, Video input type is different and check the user manual of monitor.

Product Features

- 2 Mega Pixel image sensor mounting.
- 150 degrees (based on lens) wide mega lens (based on actual recorded video) are applied.
- HD (1280X720) resolution and 30FPS are supported
- Security LED light are mounted on front body (LED Lighting function On/Off can be set in PC viewer)
- Car constant power discharge protection function (setup is available in PC viewer) is built-in. Separated power discharge safety equipment is not necessary.
- G sensor built-in Automatic parking recording mode change and event recording mode.
- Various recording functions – normal, manual, event, motion, automatic parking recording mode change.
- Operating instructions service by voice guidance.
- External video output. (real-time video image can be checked)
- Soft look and emotional design. (easy removable body)
- Driving records can be stored with GPS data. (optional)
- PC viewer software are provided to change various setting values and map data can be checked when using GPS. (In the general video player (e.g. Windows media player), recorded video can be played)
- High performance microphone built-in
- Back-up battery built-in (safety backup power support)
- Memory back-up is available by flash memory, even in the error occurred when firmware is in upgrade.
- When car constant power discharge functions in setup, the dark current of less than 2mA is consumed. (based on 12V)
- SD card can be formatted as the product itself, without connecting to a PC.
- Set the braking voltage to protect car battery discharge.
- Voice recording On/Off function and speaker output On/Off function.
- Each capacity of normal/ event/ motion folder can be set in PC Viewer.
- Recording image resolution can be set to change. (HD/D1/VGA)

Product Parts



1.	Bracket (GPS Bracket: Selling separately)	8.	Microphone
2.	Up-down adjustment screw	9.	Record LED
3.	Security LED	10.	Power LED
4.	Camera Lens	11.	Speaker
5.	GPS Connection	12.	Record Button (for manual)
6.	External Video Cable(Selling separately)	13.	Micro SD card Slot
7.	Power Input		

How to install

1.



Insert the Micro SD card into the product. (Note the direction of the SD terminal)

2.



Connect packaged cigar adapter to the power connecting terminal.

3.



Remove protective sticker on the double-sided tape of the bracket.

4.



Clean foreign substance in a place to attach the product first and attach the product.

5.



Connect cigar jack to the car cigar socket.

6.



The picture after installed

How to record

1. Recording: V300HD is automatically booted at power on, and recording starts in basic normal recording mode.
2. Recording Mode: it is classified into driving recording mode and parking (motion) recording mode
3. Recording Method: it is classified into normal recording, event recording, motion recording.

※ For automatic recording and manual recording methods, please refer the below table.

Recording mode	Recording method	Auto recording method	Manual recording method (button control)	Recording time		Recording folder
Driving recording mode	Normal recording	—	—	Set on configuration 30 / 60 / 120 sec		Normal
	Event recording	In G-sensor detect Shock	One short press button	Each 15 second recording before and after event or motion occurrence	* For HD highest quality resolution only, each 10 second recording before and after event or motion occurrence	Event
Parking (motion) recording mode	Motion recording	In G-Sensor is not detected for more than 8 minutes Automatic motion recording mode change	3 second long press button			Motion
	Event recording	In G-sensor detect Shock	One short press button			Event

※ after change to parking recording mode by manual, if you want to change normal recording mode again, please press "REC" button for 3 seconds (during event recording, mode cannot be changed.)

LED Operation

Situation	Front LED Operation	Rear LED				
		REC LED	Power LED			
			Normal (no GPS module)	GPS module		
		GPS Signal Received		GPS Signal Non-received		
Bootling	Off	 Red lighting	 Red flashing			
Firmware update	Off	 Orange flashing (Green/Red)	 Orange flashing (Green/Red)			
Normal recording mode start	 All flashing	 Green flashing	 Green lighting	 Green Flashing (Green/Red)	 Orange Flashing (Green/Red)	
Event recording mode standby		 Green lighting				
Event recording mode start	 left and right LED and central LED cross-flashing	 Red flashing				
Motion/Parking on Event recording		 Orange flashing (Green/Red)				
Motion/Parking recording start	 Reciprocation flashing left and right	 Orange flashing (Green/Red)				
Motion/Parking recording standby		 Orange lighting (Green/Red)				
No SD Card (Error)	Off	Off	 Orange flashing (Green/Red)			
ETC	Off	Off	Off			

Voice Guide

Situation	Voice Guide
Event / Motion Occur	(Alarm Tone) "Ding-Dong"
Remove SD card / SD card Error	"Please check a SD card."
Firmware Update Start	"Firmware will be updated."
Firmware Update Completed	"Firmware update has been completed."
Normal Recording Mode Start	"Normal recording will start."
* Event Recording Mode Start	"Event recording will start."
Parking Recording Mode Start	"Parking recording will start."
Recording End	"Finished"
Change the Date / Time setting	"Setting has been changed."
Automatically change to Normal Recording Mode	"SD card capacity is full. Normal recording will start"
SD card Format	"Will you format your SD card?"

※ Only when event recording mode is set in the configuration, the voice guiding "event recording will start" will announce.

PC Original Viewer Program Installation

1. System Requirements

- Windows XP(32bit), Windows Vista(32bit), Window7(32/64)
- Pentium4 2.8GHz & RAM over 1GB.
- 1024 * 768 Display device is set to be the primary monitor.
- DirectX Support (WPF)

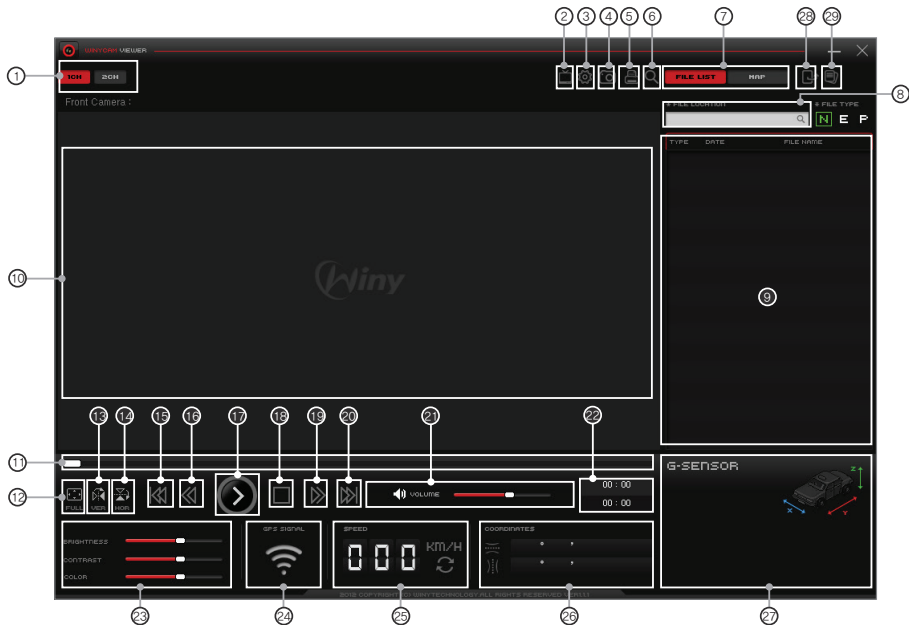
2. Install

- Playback program is in packaged Micro SD card.
- Insert this SD card into the USB card reader and connect to the computer.
- An executable file is in the SD card as below figure.
- If you run "setup.exe", Winy BB Viewer will be installed. And then, installation will be continued according to the installation sequence of setup dialog box.

※ Installation may take long depend on PC Usage environment.



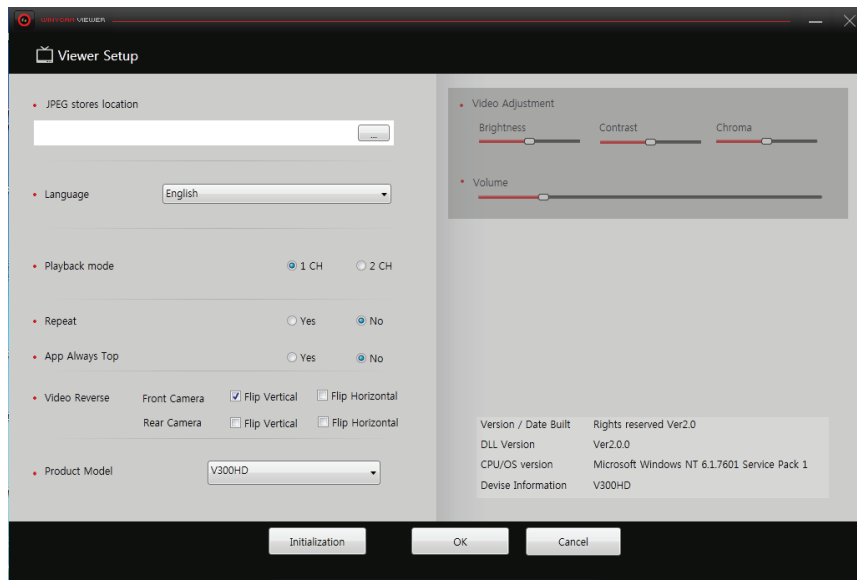
PC Original Viewer – Screen Configuration



PC Original Viewer – Screen Configuration

Item	Function	Item	Function
1	1CH / 2CH select screen	16	Fast-Rewind
2	Viewer Configuration	17	Playback or Pause
3	System Configuration	18	Stop
4	Screen Capture	19	Fast-Forward
5	Print	20	File Skip
6	Zoom	21	Control Volume
7	Play List/Map Button	22	Total File Time/Playback Time
8	Playback File Location	23	Brightness/Contrast/Chroma
9	REC file list / Map Display	24	GPS signal condition
10	Playback Video Image	25	Driving speed
11	Playback Control	26	Latitude/Longitude
12	Full Screen	27	G-sensor information
13	Flip Horizontal	28	Restored image file
14	Flip Vertical	29	Split image
15	File Skip Back		

PC Original Viewer – Viewer Configuration



PC Original Viewer – Viewer Configuration

Item	Description
JPEG stores location	Set location for captured JPEG image.
Language	Select language.
Playback mode	Select display channel.
Repeat	Select repeated playback.
App location	Select App is always the top of another window.
Video reverse	Select video reverse.
Device select	Select the model.
Video adjustment	Control Brightness/Contrast/Chroma
Playback speed	Control playback speed
Volume	Control recording volume level

PC Original Viewer – Configuration

WINYCAM VIEWER

Setup [V300HD]

- Mode Setup
 - Normal
- Driving mode Frame Rate
 - 30
- Time Setting
 - 2013-07-30T12:00:31
- Resolution
 - HD(1280x720)
- Parking Mode Frame Rate
 - 15
- Set Time?
 - No
- Normal Recording Time
 - 1Minute
- Parking Recording Mode
 - Yes
- LED Lightning Setting Change
 - Yes
- Front Video Quality
 - High-Quality
- Voice Guide Volume
 - 2
- Motion Sensitivity
 - 3
- G-Sensor Sensitivity
 - Normal
- Recording Volume
 - 2
- Overwrite Function(Event/Motion)
 - Yes
- Breaking Voltage
 - 11.8(23.7)V
- Time Zone
 - Seoul, Tokyo, Yakutsk
- TV-OUT
 - PAL
- Camera Sensor
 - Sensor Initialization
- Contrast
 -
- Brightness
 -
- Color
 -
- SD Card Folder Capacity Adjustment
 - ※ Some files would be deleted during start-up.
 - 0% 20% 40% 60% 80% 100%
 - Movie Motion Event
- Summer Time
 - No
- Model Name :
Serial Number :
Firmware Ver. :

Initialization OK Cancel

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PC Original Viewer – Configuration

Item	Description
Mode Setup	Selects normal recording mode or event recording mode when driving, and while event recording is set, the data by event recording mode will be stored. (Default: Normal mode)
Driving Mode Frame Rate	Sets the frame rate for driving. (Default: 30F) the higher frame rate is set, the movement image will be saved more smoothly.
Time Setting	Sets the current your time. when setting time in PC, please add travel time between the location you set time on PC and the location you apply set time to black box in a car. (PC -> Travel time -> Car). (When using GPS bracket, time setting will be automatically applied.)
Resolution	Sets the size of image resolution. HD 1280*720 (Default) / D1 720*480 / VGA 640*480
Parking Mode Frame Rate	Sets the frame rate when parking (Default: 15F)
Set Time?	The time set in [Time Setting] will be applied to black box. Only when changing the time set, select "Yes". (Default: No)
Normal Recording Time	30 seconds / 1 minute (default) / 2 minute. You can set recording time.
Parking Recording Mode Change	If there is no detection on G-sensor for over a certain time (approximately 8 minutes), it will be automatically switched to parking recording mode, but if any detection on G-sensor for over a certain time (about 10 seconds), it will be automatically switched to driving recording mode.
LED Lightning Setting	Sets the front LED display or not.
Video Quality	Sets the quality of recording images.
Voice Guide Volume Level	Sets volume level for voice guide.
Motion Sensitivity	Sets the sensitivity level of motion detection sensor.
G-Sensor Sensitivity	Sets the sensitivity level of shock detection sensor.
Recording Volume Level	Sets the volume level of the recording voice.
Overwrite Function(Event/Motion)	Deletes the oldest data and sets to overwrite them with a new file.
Breaking Voltage	When car voltage keep under setting breaking voltage for 5 min, a power will shut down automatically. (Parking Mode Only)
SD card Folder Capacity Adjustment	Adjusts storage space ratio by recording folder in the entire SD card storage capacity.
Time Zone	Select your local time zone
TV-OUT	Select video output format
Summer Time	Select to apply summer time

Configuration Default Setting

Item	Settings	Item	Settings
Mode Setup	Normal	Driving mode Frame Rate	30
Resolution	HD (1280 x 720)	Parking Mode Frame Rate	15
Time Setting	The time setting value on PC will be output.	Set Time?	No
Normal Recording Time	1 Minute	Parking Recording Mode Change	Off
LED Lightning Setting	On	Video Quality	High-Quality
Voice Guide Volume Level	2	Motion Sensitivity	Normal
G-Sensor Sensitivity	Normal	Recording Volume Level	2
Overwrite (Event/Motion)	On	Breaking Voltage	11.8(23.7)V
Camera Sensor	Contrast	Middle	
	Brightness	Middle	
	Color	Middle	
SD card Folder Capacity Adjustment (All 20 Cells)	Movie	10 Cells	
	Motion	4 Cells	
	Event	6 Cells	
Time Zone	(UTC+09:00)	Summer Time	No
TV-OUT	PAL		

Firmware Update

- **Firmware Update**

1. Remove the SD card from the black box after turning off the power completely.
2. Copy the firmware file to the top position of the files in the SD card after connect the SD card to the PC.
3. Boot the power in the black box after inserting the SD card into a black box
4. If the firmware file is automatically recognized, start to update the firmware after the voice guide to indicate the start of the firmware.
5. When the firmware update is completed, the firmware file stored in the SD card is automatically deleted and the black box is rebooted after the voice guide to indicate the completion of the firmware update.

- **Firmware File Format**

File name will be as FW04_yymmdd.bin – yymmdd will change depending on year/month/date of the firmware version.

SD Card Format

- **How to format the card if the SD card has recognition error**

1. Turn on the power while pressing the “REC” button.
2. While you press “REC” button, format will start.
3. When you press “REC” button briefly within format stand-by time, the SD card will be formatted and rebooted.

※ If you press “REC” button a little longer, it will be rebooted and even if stand-by time is over.

Specifications

Item	Specifications	Item	Specifications
Camera	2 Mega pixel, view angle (129 degrees)	Video Output	NTSC / PAL Composite
G-Sensor	3-axis acceleration G Sensor built-in	Voice Recording	Microphone built-in
GPS	An external GPS module (optional)	Voice Guidance	Speaker built-in
Video Compression	H.264/AVC	Recording Media	Micro SD card (SDHC)
Audio Compression	PCM, 16KHz, Stereo	Power Input	DC 12V ~ 24V Free Voltage
Recording Channel	1 Channel	Size/Weight	107(W) x 47(H) x 38(D)mm / ARO 62g
Recording Resolution	HD (1280x720), D1 (720x480), VGA(640x480)	Storage Temperature	-40 ~ +85°C
FPS	30/25/20/15/10/5FPS selectable	Operating Temperature	-20 ~ +60°C
Image Quality	Highest quality (bitrate 8Mbps - HD Standard) High quality (bitrate 6Mbps - HD Standard) General quality (bitrate 4Mbps - HD Standard)		

Recordable Time

※ Below table is Recordable Time by setting value at
 “SD card Folder Capacity Adjustment” Based on 8GB with high resolution

Recording mode	Folder Capacity Adjustment (%)	Record Time(Sec)	Frame Rate (FPS)		Record Time (Min)		The number of files (files)	
			Drive On	Parking On	Drive On	Parking On	Drive On	Parking On
Normal	50	60	30		90		90	
Event	30	30	30	15	52	99	104	198
Motion	20	30	15	15	66		131	
Total	Available to record 3hours ~ 3hours 20minite based on 8GB SD card							

Warranty

■ Warranty

1. The products are manufactured through the strict quality control and inspection process.
2. The defect occurring in normal use of user within the warranty period will be repaired free of charge.

■ Warranty Details (Conditions)

Free Service: The defect occurring under normal use within the warranty period from the date of purchase will be repaired free of charge.

Paid Service: If the warranty period has passed.

Even within the warranty period, following cases shall be repaired at cost:

Failures caused by natural disasters (fire, lightning, flood damage, etc.)

Failures caused by carelessness using (drop, flooding, shock, breakage, excessive operation)

Failures caused by the malfunction of power in use and connected equipment.

Failures caused by any changes of a product and repaired from an unauthorized service center.

Body	Accessory	
1 Year (from purchase date)	Within 6 months	SD card, Bracket, Car cigar jack, Built-in Battery
	Excluded warrantee	Card leader, Vided Cable (cut user' s mishandling)

Accessories are not repaired free of charge. The products other than the warranty period shall not be replaced free of charge. Important data shall be backed-up in a safe place and we shall not be responsible for any loss of the data stored in the product.

Date : D. M. Y.

Distributor :

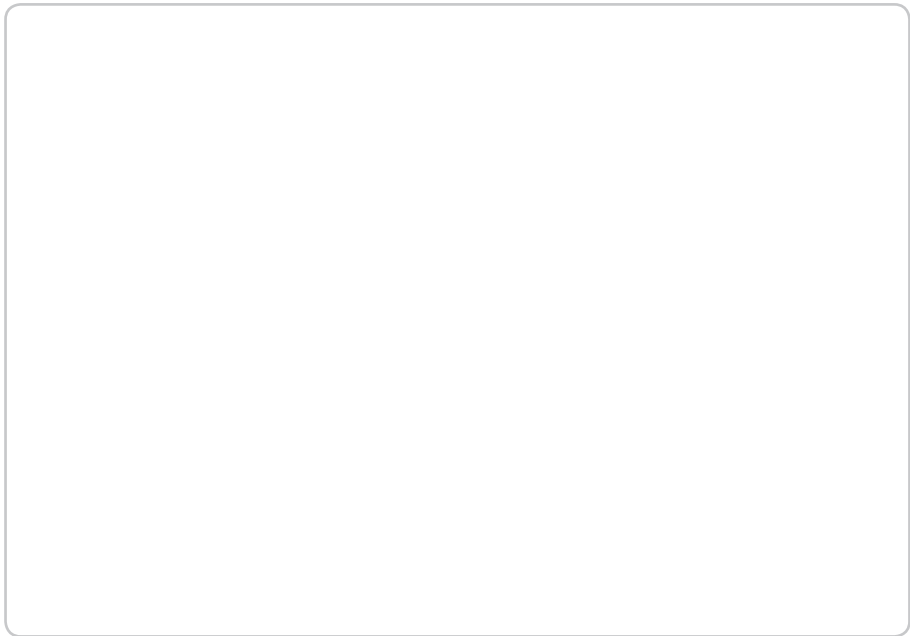
Customer Service

Manufacture : 303-305, Bucheon Technopark, #365, Samjeong-dong, Ojeong-gu, Bucheon-si,
Gyeonggi-do , Korea 421-741

Please download the user manual, program from below website
<http://winycam-eng.com>

WinyTechnology Co., Ltd.

MEMO

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